Martin J. Chavez, Mayor

Date: August 19, 2005

To: All holders of the City of Albuquerque Standard Specifications for Public Works Construction, 1986 Edition, Updates 1-7, January 2003

From: Richard H. Dourte, PE, City Engineer, Planning Department

Subject: Amendment 1 to Update No.7,
Revisions to TABLE 101.C - DESIGN MIX SPECIFICATIONS-PORTLAND CEMENT CONCRETE, SECTION 101-PORTLAND CEMENT CONCRETE

Attached is a replacement table for TABLE 101.C - DESIGN MIX SPECIFICATIONS-PORTLAND CEMENT CONCRETE, page 101-7, SECTION 101-PORTLAND CEMENT CONCRETE. TABLE 101.C (REVISED Jan.2003 UPDATE no.7) shall be replaced with the attached TABLE 101.C (REVISED Aug., 2005). All construction plans and specifications shall incorporate the revised table as soon as possible with the following effective dates for full implementation.

1. All construction plans and specifications submitted to DRC after August 19, 2005.
2. Projects with a start of construction after August 19, 2005.
3. Projects under contract may incorporate the revised table immediately.

Attachment: 1

TABLE 101.C - DESIGN MIX SPECIFICATIONS-PORTLAND CEMENT CONCRETE (1, 2, 3)

Application	Use In Section(s)	f 'c @ 28 days (4) minimum psi	Entrained Air Range [11] (%)	Slump, Not To Exceed, nte (5) inches			Portland Cement Min, lbs./cy	w:(c+fa) max [7]
				Placement	Norm	HRWRA		
Interior Concrete (heated areas): foundations and slab on grade.	510	3,000	(See par.101.7.2)	Hand Place	4	6	423	0.50
Exterior Concrete structure foundations, slab on grade, sidewalks, drive pads, wheel chair ramps, stamped pattern concrete, steps/stairs, curb & gutter, valley gutter, storm drain drop inlets, manhole bases, retaining walls, and miscellaneous concrete.	340, 346, 420, 510, 511 701, 800, and 1500	3,000	(See par.101.7.2)	Hand Place Slip Formed	4 2	6 3	470	0.45
Pavement For design of PCCP, use MR= 600 psi.	337	4,000	(See par.101.7.2)	Hand Place Slip Formed	4 2	6 3	564	0.40
Hydraulic Structures Storm drain structures and channels, and water reservoirs	510, 512, and 602	3,500	(See par.101.7.2)	Hand Place Slip Formed	4 2	7 3	517	0.40
Sanitary sewer structures and SAS manhole bases	900	4,000	(See par.101.7.2)	Hand Place Slip Formed	4 2	7 3	658 (6)	0.40
Structures - Buildings, bridges/bridge decks, and parking structures (8) (9).	510	4,000	(See par.101.7.2)	Hand Place Slip Formed	4 2	7 3	564	0.40
Sanitary sewer structures and manhole bases (8) (9).	915	4,000	(See par.101.7.2)	Hand Place Slip Formed	4 2	7 3	658 (6)	0.40
High Early Release Concrete fcr= 3,400 psi @ release to service (10)	All applications	4,000 @ 7 days	(See par.101.7.2)	Hand Place Slip Formed	4 2	7 3	Design	Design

1. Use of material(s) not defined by this specification must be approved by the ENGINEER and the COA Materials & Testing Laboratory.
2. Maximum size aggregate shall comply with the requirements of par. 101. 4.4.2.
3. Portland cement concrete shall be proportioned with Class F fly ash complying with the requirements of 101.6.4, proportioned 1: 4, minimum, fly ash to portland cement, by weight (mass).
4. MR-Modulus of Rupture, Compressive Strength (f'c) at 28 days.
5. When authorized by the ENGINEER, a high range water reducing admixture (HRWRA), super plasticizer, may be used to increase slump. When a HRWRA is proposed for use on a project. The design mix shall be proportioned to include the HRWRA. The use of a HRWRA in a design mix that was not originally proportioned with a HRWRA is not acceptable under this specification. Higher slump(s) may be used, as directed by the ENGINEER.
6. If portland cement complying with ASTM C150 Type VLA is used, a minimum of 564 lbs/cy may be used.
7. " w : (c+fa)" is defined as water to cementitious materials ratio. Cementitious material is the sum of the portland cement and fly ash, by weight (mass).
8. Lightweight structural concrete for structures, parking decks, and bridge decks shall be proportioned with a minimum compressive strength of f'c= 4,750 psi @ 28 days.
9. Minimum requirements for prestressed/post tensioned concrete. Actual criteria may differ as specified in the plans and supplemental technical specifications.
10. "High Early Release Concrete" is specified where early release of structure to either service or construction loads may be required, as authorized by the ENGINEER. "fcr" is the minimum compressive strength for release, as determined by field cured cylinders. Maximum size aggregate shall be 3/4 inch (19 mm).
11. Designated interior concrete, placed, finished, cured, and maintained by the Contractor in a temperate environment of 40^{O}F or greater, may be constructed with non air entrained concrete complying with all other requirements of this specification for the calendar period after April 30 and before October 1, as authorized by the Engineer. Concrete for wet exposures, showers and wash down areas, vehicle repair and storage floors shall not be included in this variance.